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ABSTRACT

A five-week intensive Literacy-Homecraft course (residential) for 13 women was conducted to accelerate learning and propel learners toward satisfactory achievement. At the end of the course, 10 of the 13 were reading graded material with reasonable accuracy, fluency and comprehension. Two were making fair progress, but probably will not retain literacy without joining continuation classes. One did not learn, but her vision was defective. After 3-1/2 months, students were again tested. Only one had joined a local literacy class in the interim. Eight of the 10 who could be tested achieved 80%-95% accuracy in the comprehension test (Evaluation Unit - National Literacy Pilot Project) for reading. The two who had been slowest in first testing had lost considerably and achieved only 23%-33%. All had lost in writing skills during the interim. A certain amount of homecraft practices taught in the classroom were transferred over to the home, but it was difficult to assess how much. (Author/CK)

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REPORT ON AN EXPERIMENTAL STUDY OF
AN INTENSIVE 5-WEEK LITERACY - HOMECRAFT COURSE

Conducted at: Women's Seminar, Box 139, Kijota,
P. O. Singida, Tanzania
13 July - 14 August, 1970

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Abstract

"To what extent will intensive 4-6 week courses in functional literacy accelerate learning and propel learners toward satisfactory achievement?"

A five-week intensive Literacy-Homecraft course (residential) for 13 women produced the following results:

Ten of the thirteen were reading graded material with reasonable accuracy, fluency and comprehension after 39 reading-writing classes. Two were making fair progress, but unless they join continuation classes will probably not retain literacy. One did not learn, but her vision was defective.

After 3 1/2 months students were again tested. Only one had joined local literacy class in the interim. Eight of the ten who could be tested achieved 80-95% accuracy in comprehension test (Evaluation Unit - National Literacy Pilot Project) for reading. The two who had been slowest in first testing had lost considerably and achieved only 23-33%.

All had lost in writing skills during interim.

Homecraft: This is more difficult to assess, but pages 10 and 11 indicate items reported as having been practiced at home following course.

Experimental Study on Intensive - Literacy-Homecraft Course
for Women: Central Tanzania, East Africa
14 July - 14 August, 1970

1. Introduction

Many adults are enrolling in literacy classes and participating in coordinated demonstrations in agriculture, homecraft, or other emphases designed to use their literacy skills as they learn. Classes are often scheduled two or three times per week but attendance is irregular and at the end of several months, the teacher may be still teaching early lessons of the primer.

When progress is slow, adults tend to lose interest and a large percentage become drop-outs. To what extent would intensive 4-6 week courses in functional literacy accelerate learning and propel learners toward satisfactory achievement? Will such courses result in behavioral as well as attitudinal changes?

To learn what could be accomplished toward functional literacy with a homecraft emphasis, a 5-week course was planned for 16 illiterate women at the Women's Seminar, Kijota, Singida in the Central Region of Tanzania beginning 14 July and ending 14 August, 1970.

2.0 Research Design

The Kijota Women's Seminar has offered 6-week homecraft courses for the past three years. The majority of enrollees have had standard 4 through secondary school academic backgrounds. It was projected to offer a 5-week course for women with no previous educational experience for a maximum of 16 women who would stay in the two dormitories of the Centre. It was planned that 8 would be accepted from the immediate environs of Kijota and 8 from other villages in the Singida-Kiombi districts. The 8 from Kijota would have follow-up classes arranged by the Seminar and the local primary school staff. It was assumed that the other 8 would have little systematic follow-up. Individuals from both groups would be tested after a 5-6 month lapse to determine literacy retention and behavioral changes. Mrs. Joram Makala, director of the Women's Seminar, and Miss V. Gulleen, instructor, agreed to teach the homecraft courses and assist with follow-up.

3.0 Procedure

3.1 Literacy

Subjects would have two classes daily in literacy instruction - for 1 1/4 hrs. in the morning beginning at 8:30 a.m. and for 1 hour in the afternoon beginning at 2:00 p.m. Pre-testing would determine literacy experience if any. (The invitation to enroll to be extended only to those without previous reading experience with the writer in charge of instruction.)

Materials. It was expected that the new women's homecraft primer series, Jifunze Kusoma na Kutunza Jamaa I and II (Learn to Read and Take

Care of Family) would be the basic instruction books, followed by continuation readers listed in Appendix A.

3.2 Homecraft

The usual 6-week homecraft course would be adapted to the needs and skills of the group, but would include basic instruction and practical work in the following:

Nutrition and Cookery. Three classes per week of teaching-demonstration and practical work. Teams of two women to be in charge of cooking for the group each week under supervision of Mrs. W. Makala and Miss Gulleen.

Home Management and Improvement. Two classes per week, emphasizing relationships, responsibilities of wife-mother, family care, cleanliness of home and utensils, planning, use of time, etc. (Mrs. Makala).

Health, Hygiene and Child Care. Two classes per week, emphasizing mental, physical wholeness, common illnesses, prevention, first aid, care of the ill, immunizations, infant feeding, school child, etc. (Miss Gulleen).

Laundry and Care of Clothing. One demonstration weekly plus one morning for practical learning (W. Makala).

Gardening and Poultry Raising. One class weekly plus practical work. Since it is dry season little can be done but will attempt to plant pawpaw trees. Centre has dry-season vegetable garden and keeps chickens, ducks and turkeys (Mrs. Makala).

Sewing and Knitting. Students requested to bring at least 2 yards of fabric for child's garment and Sh.12 - 15 for knitting wool. Students also to be charged Sh.40/- for boarding fees.

4.0 Plan in Operation

4.1 Enrollees and Groups

Subjects. 13 women arrived of the 27 who had applied. Only one came from Kijota so control group for follow-up was impossible.

Age of Students. 16 to 51, median 28.5

Marital Status. 10 married, 4 of whom were pregnant, and 3 unmarried. (One young mother delivered a son at the dispensary during third week of course, but returned to classes for the last 1 1/2 weeks.)

Tribes. 6 Ilyamba, 4 Turu, 2 Hadza and 1 Sukuma.

4.2 Pre-testing for Literacy Experience and Pre-course Questionnaire

Informal pre-testing was done to determine literacy skills and language ability while interviewing each student for pre-course questionnaire. Appendix B records details of the questionnaire. This information was used in adjusting syllabus of homecraft and emphasizing specific information gaps.

Pre-testing for Literacy Skills. Tested on first page of primer, middle pages, given dictation and given 10 oral arithmetic problems (from the Evaluation Unit's Pre-course questionnaire - National Literacy Project - Mwanza).

Pre-testing Results: Reading

<u>Number of Students</u>	<u>Score</u>	<u>Relevance</u>
9	0	No recognition of words or syllables.
3	1*	Recognized some words and attempted to read others, but made many errors.
1	2*	Read slowly, but recognized most syllables and was able to attack new words.

*Those who rated a score of 1 (3 persons) - one had been in a vernacular class (Kirimi) in 1959 for about 6 months - had a concept of what reading was but had forgotten many syllables; 2 others had been in an adult class for 3 1/2 weeks recently in an ujamaa village (Munguli - Watindiga). They had begun to identify words, syllables, but were in early stages of reading.

The one who rated a score of 2 had attended adult class for 6 months and had been helped at home by husband. Had read Jifunze Kusoma I and II (national primer).

Pre-testing Results: Writing

<u>Number of Students</u>	<u>Score</u>	<u>Relevance</u>
12	0	No previous writing experience
1	1	The student who had read Jifunze I and II could write name, and do some dictation, but very slowly.

Pre-testing Results: Language

<u>Number of Students</u>	<u>Score</u>	<u>Relevance</u>
1	1	Little language experience in Swahili; misunderstood many questions in questionnaire and answered in Rimi.
10	2	Fair understanding, but pronunciation often vernacularized; construction of sentences limited.
2	3	Reasonably adequate in expressing themselves in Swahili.

While all but one of the students had an adequate grasp of Swahili for initial learning in that language, some will require consistent teaching of language to understand follow-on readers.

Pre-testing Results: Arithmetic

<u>Number of Students</u>	<u>Score</u>	<u>Relevance</u>
2	1	7-9 errors in oral problems
4	2	4-6 errors
3	3	2-3 errors
4	4	0-1 errors

4.3 Initial Grouping of Subjects After Pre-testing

Group A - 9 with no previous experience in reading
Group Z - 4 with reading rates of 1 and 2

4.4 Regrouping During Course

The 9 who had tested 0 on pre-course tests were kept in one group during the first 8 days when the first 12 lessons of the 1970 edition of Jifunze Kusoma na Utunzaji wa Jamaa (duplicated pages) were taught. It was expected that the printed edition would arrive from printers in time to continue with these. However these were delayed and it was necessary to switch to the 1969 edition (which had been duplicated, tested and revised following Musoma test classes Oct. - Dec. 1969). Four students who read the first 10-12 lessons of the '69 edition with very little help became Group A and the other five who needed more revision at that time became Group B.

5.0 Teaching Techniques and Practice

The writer taught the 9 women in Groups A and B and had the assistance of Mrs. Makala and Miss Gulleen who taught Group Z (with previous experience). Daily lessons were patterned after the Teachers' Guide for Jifunze Kusoma and Kutunza Jamaa (1969-70 editions), i.e.:

1. Revision and teaching of new words in lesson by word and syllable cards and blackboard to one group while other group did dictation and read silently or to each other.
2. Use of new syllables in lesson plus previously learned syllable to build new words and use these in phrases and sentences. Consistent drill in reading sentences from board while instructor changed syllabic concords, verb stems, etc. after each reading. (Swahili is a Bantu language and each verb is "built" up with concordial prefixes and suffixes to denote person, time, place, manner, state, etc.)
3. Individual reading aloud. Testing comprehension.
4. Writing practice - dictation and answering questions.
5. Arithmetic. During the last two weeks arithmetic was taught, but too little time was given to this subject to test their skills adequately.

6.0 Testing during 4th and 5th Weeks of Course

Group A. No previous experience. During early part of 4th week this group had finished 12 lessons of 1970 edition of primer and all of 1969 edition - 23 lessons. The test-evaluation materials from the Mwanza Project were not yet available. The informal testing had 4 parts:

1. Confidence test: Read from Book 2 - lesson 7 (45 words). Familiar subject matter but not yet read in class.
2. New graded material - Book 3, page 10 (96 words) (Tutunze Jamaa)
3. New upgraded material - pamphlet from Ministry of Health (Kawaida Kumi Mama Akiwa Mja Mzito).
4. Writing - answering questions using own words.

Group B. No previous experience. Tested after completing 12 lessons of 1970 edition of Jifunze and 19 lessons (of 23) of 1969 edition - total of 31 lessons in 39 reading classes. They were given

the same test as Group A, with the exception that their writing test consisted of filling in blanks for comprehension and dictation.

Group Z. (some previous experience) Tested on more difficult material, i.e.:

1. Book 4 - 3 pages of graded material.
2. Ungraded material - Mwalimu, page 8 (Follow-up book).
3. Pamphlet from Ministry of Health - Kwaida Kuni.
4. Dictation and letter writing.

Tests were given individually. Errors were recorded as well as re-reading, self-corrected or not corrected. Comprehension tested by oral questions on materials read. Ratings of 1-6 were assigned as follows:

6	90-100%	accuracy
5	80- 89%	"
4	70- 79%	"
3	60- 69%	"
2	50- 59%	"
1	Less than 50%	

The same scale was followed with writing tests, in which scoring including spelling, punctuation, upper case letters, sentence construction.

Only those with ratings 3 or above (60% - 99%) were considered to have reached a reading level which would enable them to continue independently.

Since they had not had enough arithmetic in these few weeks to do an adequate measure, they were not tested. A future course should allot arithmetic classes from beginning of course.

7.0 Individual Test Results - Ratings in Reading and Writing

	Group A				Group B					Group Z			
Students	1	2	3	4	5	6	7	8	9	10	11	12	13
Reading	6	6	6	3	4	4	2	2	1	6	6	5	4
Writing	6	5	5	3	2	2	2	2	1	6	5	5	3

Comments and Analysis of results: (Reading and Writing)

1. Three top students in Group A (no previous experience) measured favorably with those in Group Z (previous experience). Two in Group A excelled those in Group Z in writing.
2. Six of the nine who were illiterate at beginning of course read graded material with reasonable accuracy and fluency and ungraded material with adequate ability and comprehension after 39 reading-writing classes. If they continue independent reading or join a local class they should retain skills. Two others were making fair progress, but unless they join continuation classes they will probably not retain literacy.
3. One made very poor progress. However her vision was defective as one eye had been blinded by a thorn several years ago. Her language skill and mental capacity was limited in other classes as well.

8.0 Post Testing: 3 1/2 Months After Close of Course

A 3-day seminar was held in December, 3 1/2 months after closing the course. Eleven of 13 students were tested. The 2 who could not come had had babies during November.

The Reading and Writing Tests prepared by the Work-Oriented Adult Literacy Pilot Project's Evaluation Unit (Mwanza) were administered individually. Since Arithmetic was not given adequate time in this intensive course it was not included in the testing.

Reading and Writing Scores (Post Testing)

The Reading Test is a 3-page comprehension test consisting of 12 brief paragraphs, each followed by 4 multiple choice statements - only one of which summarizes the contents of the paragraph.

Scoring

Reading: 4 points were given for each correct answer.
 1 point was given in addition for each passage read with reasonable accuracy and fluency.
 (Noted corrections, re-reading, observation of stops.)
 Possible score - 60 (changed to percentile below)

Writing: 1 point given for each word written correctly, including upper case, punctuation, spacing, appearance.
 Possible score: 40 (changed to percentile)

Student	Prev. Reading	Time (Min.)	Reading %	Writing %	Total% R - W
<u>Group A</u>					
1	None	65	90	62	76
2	"	65	83	50	62.5
3	Could not come for testing				
4	Could not come for testing				
<u>Group B</u>					
5	None	67	80	55	67.5
6	"	70	95	17	56
7	"	37*	33	25	29
8	"	30*	23	8	15.5
9	"	10*	0	0	0
<u>Group Z</u>					
10	3 1/2 wks.	53	91	70	80.5
11	3 1/2 "	42	93	60	76.5
12	6 mos.	60	90	57	73.5
13	6 mos.	78	83	57	70
			$\bar{X}$ 76.1	$\bar{X}$ 46.1	$\bar{X}$ 61.7
**					

**

* Could not complete

** Mean for 10 students who could be tested

8.1 Comments and Analysis of Post Testing

Since a different type of test was used for post testing, comparisons are more subjective, but the following could be noted:

a. Five of the students had made notable gains in reading fluency and comprehension during the 3 1/2 month interim. Only one of these had joined another adult class and her gain was commendable (scored 56 out of 60 in 42 minutes). Others reported they had continued to read at home. Two who were reading with more confidence had been in slow reading group during course. One of these achieved perfect score in multiple choices, but was unable to write "Miti ni mali."

b. Three had lost some in fluency and read more hesitatingly, took longer to make choices, but chose correctly with but few errors

c. The two who had read with the least fluency in Test I at end of course had great difficulty with Test II and were unable to read with comprehension without considerable re-reading. Discontinued testing after first 3 or 4 statements.

d. All 10 had lost in writing skills during the 3 1/2 month interim. Even those who made greatest gains in reading wrote very slowly and with less accuracy.

9.0 Homecraft Activities

9.1 Pre-course Questionnaire. See Appendix B for pre-course questionnaire. Information from replies to questionnaire were used in determining major emphases during course, i.e.:

Cookery. Need to increase protein and protective foods in diet; ways to use eggs, ground nuts, beans, fish and meat. Enriching gruel (uji) with ground nuts, eggs and milk for infants and children.

Diet included at least 1 egg per day, pulses, fish, or meat, fruit and vegetables with staples - stiff porridge once daily and rice, sweet potatoes, bananas and cassava two or three times weekly.

Child Care. Among major problems pointed up by questionnaire were:

a. Not giving newborn infants mother's first milk (Cholostrom). (7 said it was "bad and causes diarrhea and coughing," 4 said it was "good for baby," 2 said "very bad" and should be expressed.)

b. Prevalent customs of giving gruel, porridge or cow's milk a few hours after birth and continuing this supplementary feeding as mother's milk inadequate.

c. Many reported increasing "treatment" of diarrhea and other infant ills by having "tooth doctor" (mganga wa meno) pull eye teeth of infant from first days after birth or during first months. (The young mother whose son was born during the course had an infant who died at 2 months just a year ago, after grandmother had insisted on teeth-pulling treatment.) Her son born during 3rd week of course was an excellent example of adequate nourishment of mother's milk! He cried only when hungry and slept in his improvised box bed in office near the classroom while mother carried on activities with group. (At four months - during post testing - he was a thriving, alert infant beginning to eat "uji" and mashed papaya.)

d. Inadequate protein foods for children prior and after weaning; very limited fruit consumption even though only one had no fruit trees at all at home. (7 had pawpaw, 1 orange, tangerine and custard apple; 4 had guava trees and 7 had banana plants.)

e. Good custom of Hadza peoples: soaking baobab fruit in water and boil this fine flour for gruel for infants - little honey added. This is a very rich iron food.

f. Diet of school children - need for school lunches, preparation of foods for same. (One reported that in their school parents are fined if children do not bring food for noon.)

Health and Home Hygiene

a. Common illnesses, cause and cure. From questionnaire 6 of 13 did not know that malaria was caused by mosquito and 7 did not think flies were responsible for any illnesses. 12 had no refuse pit at home.

b. Latrines. 4 of 13 did not have latrine; others reported pits had no covers.

c. First Aid. Nurse gave practical instruction on first aid and care during pregnancy.

d. Cleanliness - personal, home and village. Supervised cleaning was daily and weekly routine in kitchen, dining room, store, dormitories, latrines, classroom and courtyards.

Laundry and Care of Clothing. Emphases: washing in basin or pail to conserve soap, rinsing adequately, using clothes lines; spot removal, making soap jelly and starch, washing and drying of woolens, infant garments, ironing and storing clothing.

Home Gardens and Fruit Trees. Vegetable greens, tomatoes, carrots were currently supplied by Centre's previously planted vegetable garden. Pits were dug and prepared with fertilizer from compost pits; pawpaw seeds planted and watered, but it was very dry and they had just barely sprouted at end of course. Vegetable seeds were supplied for their own home gardens.

Questionnaire revealed that many had had previous teaching on home gardens and all but one had vegetables during rainy season. Only one had no fruit trees - but produce was sold not used.

Home Management and Improvement. Relationships and responsibilities of women in home to husband, children, in-laws, neighbors, village and nation. Planning, shopping, food preservation; home beautification and improvement; socialist village advantages. 2 lived in such villages (vijiji vya ujamaa).

Sewing and Knitting. Only one had learned to knit prior to course and two reported having sewed in women's groups. All made one child's dress or shirt-shorts outfit. Knitting was difficult for many of them initially but 7 finished child's cardigan. Very time consuming and would not be introduced in a subsequent course for illiterates.

9.2 Post-course Homecraft Questionnaire

During the 3-day Seminary in December some time was spent with each lady to determine what influence course had had on subsequent homecraft activities. Obviously question and answer is not the best technique, but in lieu of visiting each woman in her own home and observe we attempted to get conversational reports. We did not ask for "yes" and "no" answers but used questions like, "What have you cooked at home of the foods we cooked here at school - or couldn't you get the supplies?" Following are summaries of items recorded:

Cookery

Egg, tomato, onion relish with porridge	4
Boiled or fried eggs	4
Fried fish with onions and tomatoes	5

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Cookery

Egg, tomato, onion relish with porridge	4
Boiled or fried eggs	4
Fried fish with onions and tomatoes	5

Added egg and groundnut flour to gruel	4
Fried steak and made gravy with onions	4
Vegetable greens with tomatoes, onions groundnuts, or with milk and eggs	8
More fruit	3
Beans with groundnuts, onions, tomatoes	4
Doughnuts	7
Yeast bread	1
Banana bread	2
Corn bread	2
Scones	1
Custard for sick and children	2
Made a debe oven	1
Used clay pot oven	1
Made oven from petrol drum	1

Health and Home Hygiene

Dig new latrine	1
Cover for latrine	2
Use ashes in latrine pit	1
Refuse pit	3
Debe for refuse in house	1
Boil water and milk	3
Cleanliness of utensils for baby	1

Laundry and Care of Clothing

Make soap jelly	4
Sewing garments before washing	4
Washing sweaters as shown	3
Boiled baby clothing	3
Used warm water for washing	7
Remove spots with salt	2

Home Gardens and Fruit Trees (Rains had just begun)

Planted 20 orange trees	1
Preparing vegetable gardens - others - not yet	5
(All had been provided with seeds for tomatoes, onions, chard, spinach, carrots with pawpaw trees)	

Home Management and Improvement (Village)

Assisted in demonstration (cooking)	2
Taught cleanliness "usafi nyumba- ni" at women's group	1
Discussed clean water for village at meeting of elders (cattle trample down water supplies)	1

Sewing and Knitting

Sewed children's gowns at home	4
Sewed skirt for self	3
Sewed dress for self	3
Knitted second child's sweater	2

Raising Chickens

Bought white leghorn rooster	1
Bought Rhode Island Red rooster	1

It is notable that one of the slowest readers reported many more homecraft activities than others! The one who didn't learn to read at all had knitted a second sweater, cooked many new dishes. Her husband reported, "Our home is a different place since the course. Vegetables are cooked properly; house and children are clean!" These could be compensations for demonstrating less reading skills.

10.0 Limitations of Study

Subjects had the advantages of living in an electrically lighted dormitory, having water on tap, water-borne sanitation. They were comparatively free from family responsibilities, children's illnesses and frequent guests which inhibit learning while attending regular literacy classes.

Since enrollees were self-selected and not chosen as a random sample of illiterates in any one village, they may be atypical of groups found in regular literacy classes. Since their husbands or families had to pay Sh.40/ toward boarding expenses and another 20/ for materials plus transportation costs, these enrollees had spouses or family members who encouraged learning.

Instructors had advantage of regular attendance, teaching a group with better-than-average knowledge of national language plus the motivation of their being privileged to attend a Seminar which up to now has provided training for those with more academic background.

Subjects did not come from the Centre but from villages 7 to 60 miles away so group continuation classes are not possible. They were urged to join local adult classes but many reported living many miles from primary schools where classes are held.

11.0 Intensive Literacy Teaching

It became obvious during first weeks of the course that consistent reinforcement of learning without long-time gaps, plus regular attendance, does accelerate learning to read and write. The writer has never taught a group which made such rapid progress in 23 years of working with adult literacy groups.

Students had 48 reading-writing classes during the 5-week session, but by the middle of the third week the most progressive students (5) were selecting books from the library of graded books and attempting independent reading.

What their reading retention will be following a longer time gap remains to be seen. Most expressed a wish for a continuation course and it was suggested that they enroll in the regular 6-week course of the Centre. The 3 unmarried students wish to attend the 2-year Bible School course which also emphasizes home economics, agriculture, chicken-rabbit husbandry.

12.0 Literacy-Homecraft Emphasis

The combination of practical homecraft courses together with the literacy classes should reinforce the subject matter being taught in the primer series and follow-on books. For example, it is one thing to read about the foods which help the body to "go, grow and glow," but preparing and eating those foods three times a day for 5 weeks should have its effects on home cookery.

However, availability of the foodstuffs required, shortage of cash, willingness of spouse or family to invest cash and time in projects like small animal husbandry, fruit and vegetable garden plots, etc. can either foster or limit transfer of learning to the home situation.

Whether improved practices will be sustained from this 5-week attempt can only be determined by subsequent follow-up, and this will not be easy since the 13 members of the course come from villages which cannot be easily reached without considerable time and expense. What they report back themselves could well be colored by what they know we would like to hear!

13.0 Extending the Experiment

While it is not possible to generalize from this small experiment conducted under very favorable circumstances, results indicate that ways should be sought to accelerate learning during the first stage literacy efforts.

Subsequent courses of this type should be projected to determine whether similar results will obtain.

13.1 It would not be possible to extend this type of residential course for the millions of mothers who could be candidates for literacy-homecraft training, but homecraft training centres throughout the nation might be encouraged to sponsor such courses as one approach to developing a nucleus of literate women for "ujamaa" (socialist) villages.

13.2 The ministry of National Education is planning and coordinating adult education as part of the syllabus of community schools. Teachers are adjusting their timetables to include 2 to 3 hours per week to teach adults. How can "intensive courses" be suggested when it is very difficult to allocate even these hours to adult education? Teachers must have the help of other volunteers - but where are those volunteers who are knowledgeable in homecraft and agriculture so that literacy teaching can be coordinated with practical demonstrations needed to reinforce learning?

Some would suggest omitting literacy and concentrating on the practical aspects of homecraft, agricultural or industrial skills. The role of literacy as a catalytic agent in bringing about attitudinal or behavioral change is not easily measured by research, but that literate persons are more innovative than illiterates is generally accepted.

13.3 Suggestions re Implementing Additional Intensive Courses

- a. Recruiting teacher training, university, Kivukoni College (adult education) and upper secondary students who are willing to team up in groups of 2-4 to conduct all-day literacy-homecraft, literacy-agriculture, literacy-political education, literacy-fishery classes in selected primary schools for 4-6 weeks during school holidays.
- b. Agricultural field officers, domestic science teachers may be asked to assist in practical demonstrations coordinated with literacy.
- c. Where practicable and feasible, enrollees should provide food for noon meal so classes can be conducted both mornings and afternoons. Only those who are willing to participate in such full-time courses during slack farming seasons should be accepted.
- d. Teams of at least two or more are suggested so that pre-testing can group those who do not have previous literacy experience into one group and those with minimal literacy into a separate group.
- e. Teachers (primary or secondary) who are on duty during that holiday could be supervisory and assist in coordinating classes with local Women's groups, agricultural field work, TANU, NUTA, etc.
- f. Classes should be limited so group taught by one teacher does not exceed 12-15 maximum (for literacy teaching). Those already literate should be invited to join demonstration groups where practical.
- g. Libraries of graded readers should be supplied so learners have access to books as soon as they begin to read independently. (Some of the learners in the Kijota experiment read 3 or more of the graded readers independently during the last two weeks of the course.)

h. Teachers-in-training, university and college students should be given initial intensive training in using materials and coordinating literacy with homecraft or other emphasis. They should also be assisted in writing up reports of their groups and in keeping diaries of student progress and problems.

Respectfully submitted,

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APPENDIX AMaterials Used in ExperimentPhase 1 (Initial Teaching)

Jifunze Kusoma na Kutunza Jamaa- I (1970 edition) - first 12 lessons printed on offset

Jifunze Kusoma na Kutunza Jamaa - I and II (1969 edition) - first experimental edition which was revised Dec. 1969

Phase 2 (Classwork)

Tutunze Jamaa (1967 edition)

Daraja la Usalama (Infant Nutrition - 1969)

Library for Independent ReadingGeneral

Tusonge Mbele Katika Kusoma
 Kwa Nini Kuwa Ngonjwa?
 Kaa Mbali (health)
 Mjengo wa Ajabu (anatomy)
 Tupigane na Safura (Hookworm)
 Utamaduni Wetu (Our Culture)
 Ukulima wa Kisasa pamphlets:
 Chakula Bora (Food for Health)
 Wapenda Kula Mavi? (flies)
 Kawaida 10 kwa Mama Mjamzito (pregnancy)

Christian

Maisha ya Yesu (2-9)
 Life of Christ
 Mwokozi (Savior)
 Immanueli (Emanuel)
 Mwalimu (Teacher)
 Mhubiri (Preacher)
 Musa (Moses)
 Esta (Esther)
 Yusufu (Joseph)

Teachers' Guides and Helps

Maarifa ya Nyumbani (Demonstration Book I)
 Maarifa ya Nyumbani (Demonstration Book II manuscript)
 Chakula Bora (Guide for Nutrition demonstrations)
 Maongozi kwa Mwalimu (Jifunze Kusoma na Kutunza Jamaa)
 Flash cards - word and syllable
 Posters and pictures

APPENDIX BPRE-TESTING QUESTIONNAIRE

(We gratefully acknowledge and appreciate the help of the Evaluation Unit of the National Literacy Pilot Project, Mwanza, Tanzania from whose questionnaire the following was adapted.)

PERSONAL DATASummary of Information

1. Name	-
2. Address	-
3. Age	17 - 51 Median 28.5
4. Previous schooling as child or adult classes	9 - None 2 - 3½ weeks 1 - 6 mo. (1959) 1 - 6 mo. (1969)
5. Marital status	10 - married 3 - unmarried
6. Education standard of husband	9 - 2nd. to 9th std. med. med. 4. 1 - illiterate
7. Children - number	33 living (2 to 6 per mother) 2 still born 4 deaths
Ages and education:	11 mo. - 26 yr. - 9 in school 2 graduates 22 under school age
8. Radio at home? Programme preference	10 - no 3 - yes News, music, Radio Voice of Gospel
9. Kind of house:	mud with sod roof - 7 mud with grass thatch - 2 mud with iron roof - 4 mud floor - 12 1 room cement - 1

HEALTHSummary of Information

10. Latrine	9 - yes	3 - no	1 - caved in
11. Mosquitoes - health hazard?	5 - do not know		
	1 - cause weight loss		
	1 - cause headache and stomach trouble		
	6 - malaria		
12. Mosquito nets?	12 - none	1 - had but not used now	
13. Flies - health hazard?	7 - do not know		
	3 - diarrhea		
	5 - eye trouble		
14. Refuse pit	12 - no	1 - yes (used fertilizer)	
15. Boil water?	10 - no	2 - yes	1 - sometimes
16. Water supply	4 - river	1 - dam	
	6 - water holes	2 - well (3 miles)	
17. Vaccinations & inoculations	30 - children yes - smallpox		
	3 - " not yet "		
	7 - whooping cough		
	5 - triple vaccine (DPT)		

NUTRITION AND COOKERY

18. Cooking: firewood, pressure charcoal, other	13 - firewood		
19. Availability of milk	10 - adequate from cattle owned		
	6 - make ghee for cooking		
	1 - buys milk; owns no cattle		
	2 - no cattle--no milk (Hadza - acct. tsetse fly)		
20. Chickens	13 - yes		
Use of eggs	11 - occasionally, esp. children		
	2 - never		
21. Fish - fresh & dried	7 - infrequently		
	2 - 2 - 3 x weekly		
	4 - hardly ever		

NUTRITION AND COOKERY (continued)Summary of Information

-
- | | |
|-----------------------------------|---|
| 22. Vegetable greens - how cooked | 10 - enrich with onions, tomatoes when available
3 - combine with milk
3 - combine with ground-nuts
12 - cook $\frac{1}{2}$ hr. or longer
1 - long time |
|-----------------------------------|---|
-
- | | | |
|------------------------------------|---|---|
| 23. Food preferences when pregnant | 4 - milk
2 - beans
3 - fish
1 - chicken
1 - tomatoes
2 - craving for sand - dirt | 5 - meat
2 - eggs
2 - vegetable greens
2 - baobab pods
2 - no preferences |
|------------------------------------|---|---|
-
- | | | |
|----------------------------------|--|--|
| 24. Foods disliked when pregnant | 1 - cabbage
1 - onions
2 - vegetable greens
1 - fish
1 - kande | 1 - meat
1 - eggs
1 - maize
3 - no dislikes |
|----------------------------------|--|--|
-
25. Common custom in village to give which foods prior to mother's milk:
- (One reported her only child died when grandmother gave gruel shortly after birth)
- | | |
|--|---|
| | 7 - gruel
3 - cow's milk (boiled)
3 - cow's milk (unboiled)
2 - boiled water |
|--|---|
-
- | | |
|--|---|
| 26. First milk of mother (cholostrom) good for baby or should it be expressed? | 7 - bad - causes diarrhea and coughing
4 - good
2 - must express and not give to baby |
|--|---|
-
- | | | |
|--|--|-------------------------------|
| 27. When do you start giving your baby additional foods (besides mother's milk)? | 1 - 2 mo.
3 - 4 mo.
3 - 6-7 mo.
1 - 9 mo. | 1 - walking age
1 - 2 yrs. |
|--|--|-------------------------------|
- How about others in your village?
- | | |
|--|--|
| | 4 (Turus) - gruel, cow's milk and porridge from birth as mother's milk inadequate
2 (Hadza) - soak baobab fruit in water and give with honey shortly after birth (iron-rich)
7 (Ilyamba-Sukuma) - gruel (some) others nothing until 9 mo. to 2 yrs.
togwa - 1-2 yr. |
|--|--|
-

NUTRITION AND COOKERY (continued)Summary of Information

- | | |
|--|--|
| 28. Customary foods given as supplementary to infants: | 3 - gruel (maize) with milk
2 - gruel with water
1 - millet togwa
2 - baobab flour gruel with honey
1 - eggs
1 - beans
3 - cow's milk |
| <hr/> | |
| 29. Weaning: age | 6 - 14 mo. or when walking
2 - 1½ yr.
3 - 1½-2 yr. |
| <hr/> | |
| 30. School child: foods taken to school | 5 - return home at noon
2 - nothing
5 - maize-bean 'kande'
3 - pumpkin or sweet potatoes
2 - millet togwa
2 - left over porridge
1 - milk
1 - gruel cooked at school
1 - parents fined if no food sent with children |

AGRICULTURE AND HOME GARDENS

- | | | | | | | | | | |
|--|--|----------|-------------|---------------|--------------|-------------|-------------|-----------|-------------|
| ✓ 31. Cultivation done by | 11 - Oxen drawn ploughs
2 - tractors (Ujamaa village) | | | | | | | | |
| <hr/> | | | | | | | | | |
| 32. Last year's crops: | Millet - 13 - little to 42 bags (all)
Maize 13 - 1 bag to 34 bags (all)
Beans 10 - little to 4 bags
Ground nuts 11 - little to 2 bags
Cow peas 9
Potatoes-sweet 3
Other legumes 5
Sunflower 1
Onions 4
Cotton 5 (Little to 4 acres) | | | | | | | | |
| <hr/> | | | | | | | | | |
| 33. Vegetables planted in home gardens | <table border="0"> <tr> <td>1 - none</td> <td>1 - carrots</td> </tr> <tr> <td>11 - tomatoes</td> <td>5 - pumpkins</td> </tr> <tr> <td>9 - spinach</td> <td>1 - lettuce</td> </tr> <tr> <td>1 - chard</td> <td>3 - cabbage</td> </tr> </table> | 1 - none | 1 - carrots | 11 - tomatoes | 5 - pumpkins | 9 - spinach | 1 - lettuce | 1 - chard | 3 - cabbage |
| 1 - none | 1 - carrots | | | | | | | | |
| 11 - tomatoes | 5 - pumpkins | | | | | | | | |
| 9 - spinach | 1 - lettuce | | | | | | | | |
| 1 - chard | 3 - cabbage | | | | | | | | |

AGRICULTURE AND HOME GARDENS (continued)Summary of Information

34. Fruit trees

- 1 - none
- 7 - bananas (few to 2 acres)
- 7 - pawpaw (few to 50)
- 1 - oranges (30)
- 1 - tangerines (10)
- 4 - guava (2 to 30)
- 1 - custard apple

Use of fruit: Seldom used except occasionally for children -
sold for cash

SEWING AND/OR KNITTING SKILLS

35. Sewing

- 2 - some experience
- 11 - none

36. Knitting

- 1 - little experience
- 12 - none

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Respectfully,

/s/ Marian Halverson

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ERIC Clearinghouse

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on Adult Education